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BLAKELY SOKOLOFF TAYLOR & ZAFMAN  
12400 WILSHIRE BOULEVARD  
7TH FLOOR  
LOS ANGELES, CA 90025

EXAMINER
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HARPER, KEVIN C

ART UNIT	PAPER NUMBER
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2666

DATE MAILED: 11/19/2003

19

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/164,429

Applicant(s)

CHUNG ET AL.

Examiner

Kevin C. Harper

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 21 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 50-61 and 72-160 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 50-61 and 72-160 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. §§ 119 and 120**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

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***Response to Arguments***

Applicant's arguments with respect to claims 50-61, 72-83 and 92-160 have been considered but are moot in view of the new ground(s) of rejection.

The indicated allowability of claims 50-61, 72-83 and 92-99 is withdrawn in view of the newly discovered reference(s) to Binkerd et al. (US 4,623,760), Meubus et al. (US 5,793,858), English et al. (US 5,305,308), Fuentes (US 5,812,541) and Lowry et al. (US 5,970,066).

Rejections based on the newly cited reference(s) follow.

***Claim Objections***

1. Claims 50-61 and 72-83 are objected to because in independent claims 50 and 72, the first ring signal and the off-hook signal are not generated at the same interface (page 62, lines 2-3 and 12-14).
2. Claim 101 is objected to because it should depend on claim 100 and not claim 102.
3. Claim 119 is objected to because voice stream should be packetized to be multiplexed with the data stream.

Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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Claims 53-54, 56-57, 75-76, 78-79 and 106-107 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

4. Regarding claims 53-54, 56-57, 75-76, 78-79 and 106-107, the second telephone interface or remote telephone interface (Figure 43; page 61, line 26 through page 63, line 12) does not reside at a central office or second PBX but is an interface to a packet network (Figure 43, item 4208) connected to a PBX or central office (note: "remote off-premise telephone extension" in Figure 42 describing items 4208 and 4218).

***Claim Rejections - 35 USC § 103***

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 50, 52, 55, 58, 72, 74, 77, 80, 92, 94, 100, 102, 108-112, 119-124, 128, 130-135, 139, 141-146, 150-155 and 159 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chang et al. (US 6,118,864) in view of Guy et al. (US 5,940,479) and Binkerd et al. (US 4,623,760).

5. Regarding claims 50, 72, 92, 100, 108, 120, 128, 130-131, 139, 141-142 and 150, Chang discloses a method comprising initiating a call to a remote telephone interface (Figure 1, item 19) at a first telephone interface (item 36; Figure 2A step 72), establishing a connection at a second interface (Figure 1, items 22 and 8) toward a remote interface over a packet data network (item 32, 34 and 4; col. 3, lines 30-32), generating an inherent second ring signal and starting an inherent timer for measuring a time period that the second ring signal is applied (Figure 5B, step

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148; note: ring-no-answer), ceasing the second ring signal (note: ring-no-answer) and sending a message a message through the packet network (Figure 5B, steps 150). However, Chang does not disclose generating a first ring signal at a first interface (as understood in light of the above claim objection). Guy discloses transmitting a ring signal from one device to another to indicate a desire to make a connection (Figure 1, items 101B and 128; col. 8, lines 10-13). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to generate a ring signal at a first interface in the invention of Chang. Further, Chang in view of Guy does not disclose generating an off-hook signal at the second interface or ceasing the off-hook signal and generating an on-hook signal at the second interface. Binkerd discloses providing an off-hook signal and then removing the off-hook signal and providing an on-hook signal to indicate the status of a line (Figure 1, items 102 and 109; Figure 8, timing diagram 801; Figure 9; col. 16, lines 38-42 and col. 17, lines 7-9). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to generate an off-hook signal and then cease an off-hook signal and generate an on-hook signal at the second telephone interface in the invention of Chang in view of Guy in order to communicate the line status between devices. Further regarding claims 131 and 139, the system includes a computer readable medium (Figure 1B, memory) having instructions for performing the method (Figure 1B, CPU).

6. Regarding claim 119, the system of Chang comprises a MAC (items 8, 22 and 32) for receiving a data stream and a voice channel, packetizing the voice channel and multiplexing the data stream and packetized voice channel (Figure 1, item 34) over a trunk which is inherently configurable (col. 3, lines 35-38 and 44-46). The MAC comprises an inherent CPU coupled to

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ports (items 38 and 24 and connection to clients and router 34) and a memory (col. 5, lines 25-32).

7. Regarding claims 151 and 159, these limitations have been addressed in the rejection of claims 108 and 119 above.

8. Regarding claims 52, 55, 74, 77 and 152-154, the first interface resides at a PBX or central office (Chang, Figure 1A, item 36; Figure 1D, item 50).

9. Regarding claims 58, 80, 94, 102, 115, 124, 135, 146 and 155, the network is an IP network (Chang, col. 3, lines 45-47).

10. Regarding claim 109, the second system comprises a VOPS control system (Chang, Figure 1C, items 2 and 39).

11. Regarding claims 110-112, the third interface resides at a PBX or central office/PSTN (Chang, Figure 1A, item 36; Figure 1D, item 50).

12. Regarding claims 121-123, 132-134 and 143-145, a ring signal to denote an indication of an incoming call is provided to a PBX or central office/PSTN (Chang, Figure 1A, item 36; Figure 1d, item 50; Figure 5B, step 148).

Claims 51, 73, 93, 101 and 113-114 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chang in view of Guy and Binkerd, as applied to claims 50, 72, 102 or 108 above, and further in view of Meubus et al. (US 5,793,858).

13. Regarding claims 51, 73, 93, 101 and 113-114, Chang in view of Guy and Binkerd does not disclose that that a timer for a ring-no-answer lasts a particular duration. Meubus discloses that a configurable and fixed timer lasts preferably up to 72 seconds. Therefore, it would have been obvious to one skilled in the art at the time the invention was made to have a ring-no-

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answer timer for up to 72 seconds in the invention of Chang in view of Guy and Binkerd in order to allow a sufficient time for a called telephone to be answered. Further, Chang in view of Guy, Binkerd, and Meubus does not disclose that the timer lasts 2 to 3 minutes. One skilled in the art would recognize that a ring-no-answer timer of 2 to 3 minutes allows additional time for called telephone to be answered (MPEP 2144.05 (I) (II)). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to have a timer of 2 to 3 minutes in the invention of Chang in view of Guy, Binkerd and Meubus.

Claims 59-61, 81-83 95-97, 103-105, 116-118, 125-127, 136-138, 147-149 and 156-158 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chang in view of Guy and Binkerd, as applied to claims 50, 72 108, 120, 131, 142 or 151 above, and further in view of English et al. (US 5,305,308).

14. Regarding claims 59-61, 81-83, 95-97, 103-105, 116-118, 125-127, 136-138, 147-149 and 156-158, Chang in view of Guy and Binkerd does not disclose that the packet network uses frame relay, HDLC or ATM. English discloses transmitting voice information over a network that uses frame relay, HDLC or ATM (col. 3, lines 50-55; col. 12, lines 9-20; and col. 45, lines 59-61). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to use frame relay, HDLC or ATM in the packet network of Chang in view of Guy and Binkerd to use a preferred, suitable and standardized alternative protocol in a packet network.

Claims 53-54, 56-57, 75-76, 78-79 and 106-107 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chang in view of Guy and Binkerd, as applied to claims 52, 55, 74, 77, 92 or 100, above, and further in view of Fuentes (US 5,812,541) or Lowry et al. (US 5,970,066).

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15. Regarding claims 53-54, 56-57, 75-76, 78-79 and 106-107, Chang in view of Guy and Binkerd does not disclose that the second or remote telephone interface is located at a PBX or central office. Fuentes and Lowry disclose an interface to a packet network located at a PBX (Figure 1, items 1 and 19) and central office (Figure 1, items 14 and 52), respectively.

Therefore, it would have been obvious to one skilled in the art at the time the invention was made to locate an interface to a packet network at a PBX or central office in the invention of Chang in view of Guy and Binkerd in order to conveniently control and administer the interconnection at the location of the PBX or central office.

Claims 129, 140 and 160 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chang in view of Guy and Binkerd, as applied to claims 120, 131 or 151, above, and further in view of Menon et al. (US 6,208,627).

16. Regarding claims 129, 140 and 160, Chang discloses using DTMF digits from a caller to determine a destination. However, Chang in view of Guy and Binkerd does not disclose using a secondary dial tone. Menon discloses using a secondary dial tone in order to notify a user that an outgoing trunk from a PBX has been seized (col. 44, lines 35-45). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to have a secondary dial tone in the invention of Chang in view of Guy and Binkerd in order to provide a dial tone for local calls within the PBX and another dial tone for calls outside the PBX.

### ***Conclusion***

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17. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Tomono et al. (US 6,169,750) discloses transmitting voice information over a packet network.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin Harper whose telephone number is 703-305-0139. The examiner can normally be reached weekdays, except Wednesday, from 9:30 AM to 8:00 PM ET.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema S. Rao, can be reached at 703-308-5463. The centralized fax number for the Patent Office is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Customer Service Office for TC 2600 at 703-306-0377.

Kevin C. Harper



November 10, 2003

*Seema S. Rao*  
SEEMA S. RAO 11/10/03  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600